

deep-brown, shiny, loculicidal dehiscence; seeds 4, 2-in each half, triangular, 0.6-0.8 cm diam., compressed laterally, glabrous, purple brown (fig. 1, A-H).

Pollen: Prolate, 41-49 μm \times 22-24 μm ; 3 colpate, colpa tapering, margin not entire, 21-32 μm \times 4-4.5 μm , granulated; Exine 2.5 μm ; Columella short, straight, indistinct; sexine \pm 1 μm ; nexine \pm 1.5 μm ; semitectate, finely reticulate; lumi 1 μm , muri 0.5 μm , some free bacula present in the lumi (fig. 1, D).

Flowering: November. *Fruiting*: March.

Type: Bhutan, Oongar, *Griffith* 688 (CAL).

Specimens Examined: BHUTAN: East Himalaya, Bhutan, without any precise locality, *Ex herb. East India Company 6146* (CAL); Puna-kha, 18.4.1905, I. E. White 37 (CAL). WEST BENGAL: Jalpaiguri Dist., Buxaduar, Ramiti, 29.11.1975, *Sikdar* 4034 (CAL); Buxaduar, way to Sinchula, 1450 m, 2.3.1934, *K. Biswas* 2032 (CAL).

We have come across collection of uncertain localities deposited at (CAL). The first one is labelled "*Herb. Hort. Bot. Calcuttensis* (Flora of Sikkim), *Ribu & Rhamoo* s.n." but has a

remark about its collection locality by S. K. Mukerjee (on 6th Nov. 1941) as "this has been recorded from Bhutan and from Torsa Valley in Chumbi". The second collection by *K. Thothathri* 63 (Acc. No. 339558) is most probably from Bhutan as he visited Bhutan.

Distribution: Bhutan, West Bengal.

Yamazaki (l.c.) has included Sikkim in its distribution but no representative collection was cited by him. It is not known to occur any where in Sikkim.

Rare, growing on rocky crevices on the Buxaduar hill slopes at \pm 1400 m altitude.

ACKNOWLEDGEMENTS

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CENTRAL NATIONAL HERBARIUM,
BOTANICAL SURVEY OF INDIA,
HOWRAH 711 109,
January 24, 1980.

J. K. SIKDAR
G. G. MAITI

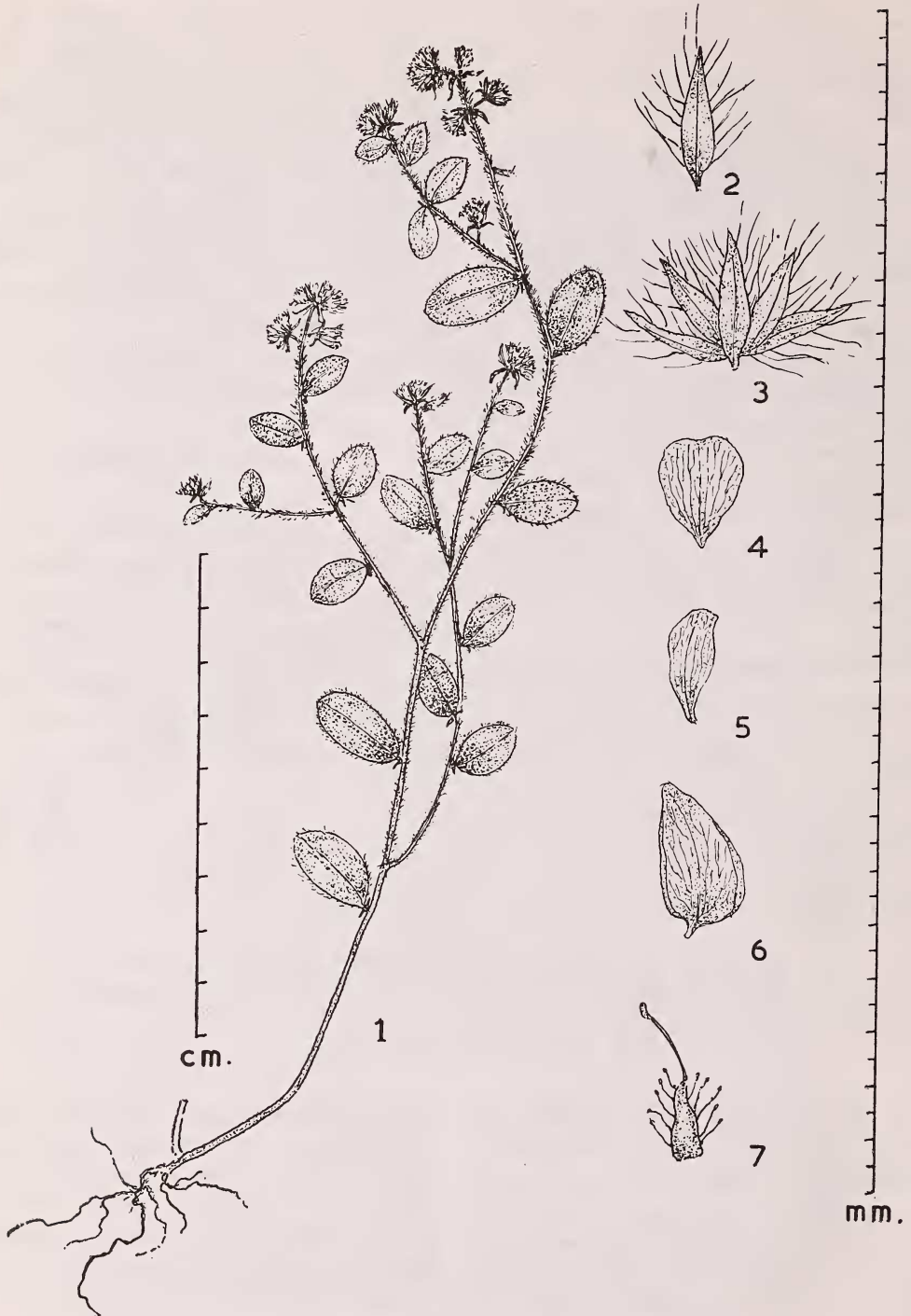
35. A NOTE ON THE OCCURRENCE OF *CROTALARIA ACICULARIS* BUCH.-HAM. IN KARNATAKA AND MAHARASHTRA

(With seven text-figures)

Cooke (1901-08) and Haines (1916) did not record *Crotalaria acicularis* Buch.-Ham. from Maharashtra State. However, Gamble (1916) has recorded this species from N. Circars in Ganjam in dry forest lands and Western Ghats in Anamalai hills and Travancore. The localities cited by the earlier workers are

neither from Karnataka nor Maharashtra.

The identity of herbarium specimen (*Rao* 95536) housed in the herbarium of Western Circle (*BSI*) collected earlier from Coorg district identified as *Crotalaria albida* was critically examined and found to be *Crotalaria acicularis* Buch.-Ham. only, and is therefore a



Figs. 1-7. *Crotalaria acicularis* Buch.-Ham.: 1. Entire plant; 2. bract; 3. calyx; 4. standard petal; 5. wing petal; 6. keel petal; 7. Androecium ensheathing gynoecium.

new record for Karnataka State.

Critical studies on "crotalaria" from Chandrapur district shows the occurrence of *Crotalaria acicularis* Buch.-Ham. in Maharashtra also. The plant (*Malhotra* 138567) collected from Palalgotta in Bhamragarh forest division (Chandrapur district) serves as a new record for Maharashtra State thus extending its distribution further north.

In view of its rarity and absence of any known published illustration of the plant, a line drawing is given along with a brief description.

Crotalaria acicularis Buch.-Ham. in Wall. Cat. 5390, 1831-32. Baker in Hook. f. Fl. Brit. India 2: 68. 1876.

BOTANICAL SURVEY OF INDIA,
WESTERN CIRCLE, PUNE,
May 19, 1980.

A prostrate herb with spreading branches thinly clothed with silky hairs. Leaves nearly sessile, obtuse, glaucous green, membranous, rounded at the apex, slightly cordate at base. Stipules persistent, reflexed. Flowers yellow. Pods small, oblong, glabrous.

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S. K. MALHOTRA
SIRASALA MOORTHY

36. NEWLY RECORDED AND REDISCOVERED FERNS AT
MT. ABU, RAJASTHAN

Mt. Abu situated at 24°36'N and 22°43'E forms the south western extremity of the Aravali Range and is the highest point between the Himalayas and the Nilgiris (height 1727 m above mean sea level at Guru Shikhar, the highest peak of this range). Due to heavy rainfall compared to other parts of Rajasthan it possesses a rich vegetation of the humid subtropical type with the largest concentration of pteridophytes in Rajasthan.

Bhardwaja *et al.* (1978) in their recent survey of pteridophytic localities of Rajasthan mentioned that some of these ferns have now been observed during a botanical trip to Mt. Abu in August-September 1979. Besides, *Araiostegia pseudocystopteris* (Kze.) Copel a fern belonging to Davalliaceae has also been observed for the first time at Mt. Abu. This note describes the distribution and morphology

of these rediscovered and new fern taxa at Mt. Abu.

Araiostegia pseudocystopteris (Kze.) Copel.: This fern was collected from Guru Shikhar and is a new record for Rajasthan. The Mt. Abu material bears the following morphological features.

Rhizome creeping on the moist surfaces of rocks, sympodial, brown, densely covered with spreading, cordate scales. Fronds alternate arising from an involucre cup like structure formed by densely overlapped, spreading scales on short lateral branches. Stipe 7-15 cm long, grooved, sparsely covered with scales. Fronds sagittate, lowest pinnae opposite and all other pinnae alternate. Each pinna broadly lanceolate 3-4 pinnatifid, lower pinna 5-7 cm long, upper most 1-1.5 cm long. Segments very acute, texture thin. Sori on veins, ventral inter-